

### Remarks

Claims 1-69 are pending in the present application. Reconsideration is respectfully requested.

### Specification

The Examiner's suggested changes to the specification are, by this amendment, made to the present application. Accordingly, withdrawal of the specification objections is requested.

### Non-Statutory Claim Objections

Claim 1: The word "and" was added to the claim.

Claim 2: The Examiner's suggestion of adding the word -- a -- did not make sense for this claim and thus the claim was not amended.

Claim 28: The Examiner's suggestion of adding the word -- a -- was made.

Claim 31: The Examiner's suggestion of adding the word -- a -- was made.

Based on the above, withdrawal of the claim objections is requested.

### Claim Rejection under 35 USC § 112, First Paragraph

Claim 63: Claim 63 has been amended to include the term -- electrolytically -- to address the Examiner's concerns. Accordingly, withdrawal of the claim rejection is requested.

### Claim Rejections under 35 USC § 112, Second Paragraph

Claim 5: Claim 5 has been amended to depend from claim 1 to address the Examiner's concern.

Claims 9, 12, and 31 have been amended to delete reference to the recited trademarks.

Claims 13 and 32: These claims have not been amended to further define the term SPS, because SPS is clearly defined in the application. See, e.g., p. 11, line 24 of the present application where SPS is explicitly defined even though one of ordinary skill in the art would recognize the chemical acronym even without that explanation. Thus, the meaning of the claim term is readily apparent to persons of ordinary skill in the art as required under § 112. See, MPEP §2173.05(a).

Claim 20: Claim 20 has been amended to recite the copper-deposition suppressor to address the Examiner's concern.

Claims 21, 30, 37, 41, 46, 50, 61, 64, 65, and 67: The Examiner rejects each of these claims as allegedly being unclear as the Examiner is "unsure" whether the claims are reciting the same constituents as recited in the claims' respective independent claims or are reciting different constituents. Applicants respectfully submit that each of the claims is sufficiently clear such that the scopes and compositions of the claims are readily apparent, and thus each claim meets the requirements under § 112, para. 2. See, MPEP §2173.05(a).

Claim 61: Claim 61 is additionally rejected as allegedly lacking antecedent basis for "the same plating tool." Claim 61 is amended to alleviate the Examiner's concerns in this regard.

Based on the above, withdrawal of the claim rejections under 35 USC § 112, 2<sup>nd</sup> para. is respectfully requested.

#### Claim Rejections under 35 USC § 103(a)

*Claims 1-5 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 1 of the present application recites in part, a composition comprising about 35 to about 60 g/L copper and about 65 to about 150 g/L sulfuric acid. These carefully defined ranges recite compositions that include copper and acid *at relative concentrations avoided in the prior art*. The electroplating compositions set forth in claim 1 provide surprisingly superior fill capabilities, particularly copper deposition bottom-up fill capabilities for high aspect ratio features having submicron dimensions (e.g., 0.12  $\mu\text{m}$  trenches) such that the presence of voids is reduced or substantially eliminated altogether. See, for example, specific embodiment results shown in Figs. 2(a-e) through 4(a-f) and pp. 22-27 of the present application, where particular unexpected superior results of the presently claimed compositions are disclosed.

*The '796 patent, on the other hand, discloses the very prior art that Applicants differentiate both in their specification (see, e.g., p. 8, ll. 24-29) and their claims. The '796 patent neither teaches nor suggests the presently claimed compositions.*

**The '796 patent discloses high acid, low copper concentration compositions. The bath compositions in the '796 patent examples are set out in Table 2, col. 8, where the acid concentrations in each composition is 175 g/l with copper concentrations of 17.5 g/l. These**

**are completely outside the ranges as claimed in Applicant's claim 1 composition.**

Furthermore, the '796 patent states the importance of the high acid concentration and low copper concentration: "Also important to wetting is the concentration of acid and salt [copper sulfate] in the electroplating bath. High acid levels are effective in quickly dissolving any surface oxides and achieving wetting of the metal onto which subsequent plating must take place." Col. 5, ll. 33-37. Thus, not only are there reported surprising and unexpected results with the current applicants' claimed compositions, but the '796 patent essentially teaches away from using the claim 1 recited copper and acid concentrations ranges.

It is clear that the '796 patent does not teach *or suggest* any compositions comprising the relatively narrow ranges recited in claim 1 of the present application. The Examiner relies on disclosure in the '796 patent of broad ranges listed in Table 1. But there is no motivation (nor does the Examiner point to any motivation) to use those broad ranges the Examiner recites from Table 1 of the '796 patent to achieve the specific compositions recited in applicants' claim 1.

As determined in prior Board cases and as set forth in the MPEP, an Examiner's hypothetical composition made up by choosing certain constituents from a list of broad generic chemical ranges or formulae will only anticipate or make obvious a species of that genus if the disclosure includes examples or other delineating teachings that arrive at the specific composition being rejected based on that generic chemical formula.

[I]f the reference's disclosed range is so broad as to encompass a very large number of possible distinct compositions, this might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus. See also *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). A genus does not always anticipate a claim to a species within the genus. ... When the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated. MPEP § 2131.02.<sup>1</sup>

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<sup>1</sup> The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994)

Applicants can rebut a prima facie case of obviousness based on overlapping ranges by showing the criticality of the claimed range. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, *generally by showing that the claimed range achieves unexpected results relative to the prior art range.*" *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). MPEP § 2144.05 (emphasis added).

**The broad ranges disclosed in the '796 patent neither teach nor suggest the specific compositions set forth in claim 1. In fact, the minor amount of disclosure in the '796 patent in regard to the composition actually teaches away from the presently claimed ranges. Clearly, from review of the specification of the present application (e.g., the figures and text mentioned above) Applicants have disclosed the unexpected superior results of the carefully crafted and claimed compositions.**

The '857 reference does not make up for the deficiencies of the '796 patent. In fact, it recites the same basic conventional low copper, high acid compositions - reciting three examples (Examples 1-3 at col. 5, l. 54 through col. 6, l. 31) with an acid concentration of 170 g/l and a copper concentration of 18 g/l - again clearly outside the presently claimed composition ranges. Of course, Applicants recognize that the Examiner is not asserting that the '857 patent teaches or suggests the compositions presently claimed. However, for the same reasons set forth above in relation to the '796 patent, the '857 patent, whether considered independently or in combination with the '796 patent, neither teaches nor suggests the compositions of present claim 1. Thus, Applicants respectfully request that the rejection be withdrawn.

Claims 2-5 are dependent upon claim 1 and thus are allowable over the art of record as well. Claims 2-5 are also allowable over the art of record based on the unique and non-obvious

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("The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious."); *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992) (Federal Circuit has "decline[d] to extract from [*Merck & Co. v. Biocraft Laboratories Inc.*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir. 1989)] the rule that... regardless of how broad, a disclosure of a chemical genus renders obvious any species that happens to fall within it."). See also *In re Deuel*, 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995). MPEP § 2144.08.

combinations of features disclosed in each of those claims. For example, in present claim 3, a concentration of about 2 to about 30 ml/l of accelerator is recited. The only specific disclosures (other than the broad ranges disclosed in Table 1 in the '796 patent) teach and suggest an accelerator concentration of 1 ml/l - outside the presently claimed range.

For the reasons set forth above, Applicants respectfully request that the rejections of claims 2-5 be withdrawn.

*Claims 6-14 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 6 (and dependent claims 7-14) of the present application recites in part, a composition comprising about 35 to about 60 g/L copper and about 65 to about 150 g/L sulfuric acid. Claims 6-14 are allowable over the art of record for the same reasons as set forth above in relation to claim 1. Neither the '796 patent nor the '857 patent, whether considered individually or in combination, teaches or suggests the composition of present claim 6 (or dependent claims 7-14). Claims 7-14 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. Thus, Applicants respectfully request that the rejections to claims 6-14 be withdrawn.

*Claims 15-18 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 15 (and dependent claims 16-18) of the present application recites in part, a composition comprising about 35 to about 60 g/L copper and about 65 to about 150 g/L sulfuric acid. Claims 15-18 are allowable over the art of record for the same reasons as set forth above in relation to claim 1. Neither the '796 patent nor the '857 patent, whether considered individually or in combination, teaches or suggests the composition of present claim 15 (or dependent claims 16-18). Claims 16-18 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. Thus, Applicants respectfully request that the rejections to claims 15-18 be withdrawn.

*Claims 19-25 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 19 (and dependent claims 20-25) of the present application recites in part, a composition comprising about 45 to about 55 g/L copper and about 75 to about 120 g/L sulfuric acid. Claims 19-25 are allowable over the art of record for the same reasons as set forth above in relation to claim 1. Neither the '796 patent nor the '857 patent, whether considered individually or in combination, teaches or suggests the composition of present claim 19 (or dependent claims 20-25). Claims 20-25 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. Thus, Applicants respectfully request that the rejections to claims 19-25 be withdrawn.

*Claims 26-33 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 26 (and dependent claims 27-33) of the present application recites in part, a composition comprising an aqueous mixture of copper and sulfuric acid wherein the ratio in g/L of solution of copper to acid is equal to about 0.4 to about 0.8. This carefully defined range of ratios are the vary ratios that were avoided in the prior art. The electroplating compositions set forth in claim 26 provide surprisingly superior fill capabilities, particularly copper deposition bottom-up fill capabilities for high aspect ratio features having submicron dimensions (e.g., 0.12  $\mu\text{m}$  trenches) such that the presence of voids is reduced or substantially eliminated altogether. See, for example, specific embodiment results shown in Figs. 2(a-e) through 4(a-f) and pp. 22-27, which also disclose the superior unexpected results of the presently claimed compositions.

*The '796 patent, on the other hand, discloses the very prior art that Applicants differentiate both in their specification (see, e.g., p. 8, ll. 24-29) and their claims. The '796 patent neither teaches nor suggests the presently claimed compositions.*

**The '796 patent discloses high acid, low copper concentration compositions. The bath compositions in the '796 patent examples are set out in Table 2, col. 8, where the copper to acid ratio is 0.1. This is completely outside the range of 0.4-0.8 claimed in Applicants' claim 26. Furthermore, as mentioned above in relation to claim 1, the '796 patent states the importance of the high acid concentration and low copper concentration: "Also important to wetting is the concentration of acid and salt in the electroplating bath. High acid levels are effective in quickly dissolving any surface oxides and achieving wetting of the metal**

onto which subsequent plating must take place." Col. 5, ll. 33-37. Thus, not only are there reported surprising and unexpected results with the current applicants' claimed compositions, but the '796 patent teaches away from using the claim 26 recited compositions wherein the ratio of copper to acid concentration is much higher.

Also as discussed above in relation to claim 1, the Examiner cannot rely on the broad range set forth in Table 1 of the '796 patent in the face of the facts that there is (1) no motivation in the '796 patent to reach the previously avoided relative ratios as currently claimed by Applicants (which presently claimed composition ratios achieve unexpected superior results as discussed above) and, (2) the '796 patent actually teaches away from such ratios by asserting that the low copper high acid ratio of 0.1 is an important aspect of the disclosed alleged invention. See Table 2 and Col. 5, ll. 33-37.

Also as discussed above, the '857 reference does not make up for the deficiencies of the '796 patent. In fact, it recites the same basic convention low copper high acid compositions - reciting three examples (Examples 1-3 at col. 5, l. 54 through col. 6, l. 31) with an acid concentration of 170 g/l and a copper concentration of 18 g/l - again clearly outside the presently claimed ratio range of 0.4 to 0.8. Examples 1-3. Of course, Applicants recognize that the Examiner is not asserting that the '857 patent teaches the compositions presently claimed. However, for the same reasons set forth above in relation to the '796 patent, the '857 patent, whether considered individually or in combination with the '796 patent, neither teaches nor suggests the compositions of present claim 26. Thus, Applicants respectfully request that the rejection be withdrawn.

Applicants also respectfully request that the rejections asserted against dependent claims 27-33, be withdrawn. Claims 27-33 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. For example, in present claim 30, a concentration of about 2 to about 30 ml/l of accelerator is recited. The only specific disclosures (other than the broad ranges disclosed in Table 1 in the '796 patent) teach and suggest an accelerator concentration of 1 ml/l - outside the presently claimed range.

*Claim 34 is rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796. This rejection is traversed.*

Claim 34 recites in part, a composition comprising an aqueous mixture of copper and sulfuric acid wherein the ratio in g/L of solution of copper to acid is equal to about 0.3 to about 0.8. Accordingly, claim 34 is allowable for similar reasons as set forth above in relation to claims 1 and 26.

*Claims 35-43 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 35 recites, in part, an aqueous mixture of copper and sulfuric acid wherein the copper concentration in the composition is within about 60% to about 90% of its solubility limit when the sulfuric acid concentration is from about 65 to about 150 g/L. Again, for similar reasons as set forth above in relation to the previously discussed independent claims, the '796 patent neither teaches nor suggests the claimed copper/acid compositions set forth in Applicant's claims 35-43.

The carefully defined range of ratios are the vary ratios that were avoided in the prior art. The electroplating compositions set forth in claim 26 wherein copper concentration in the compositions are within about 60% to about 90% of its solubility limit when the sulfuric acid concentration is from about 65 to about 150 g/L, provide surprisingly superior fill capabilities, particularly copper deposition bottom-up fill capabilities for high aspect ratio features having submicron dimensions (e.g., 0.12  $\mu\text{m}$  trenches) such that the presence of voids is reduced or substantially eliminated altogether. See, for example, specific embodiment results shown in Figs. 2(a-e) through 4(a-f) and pp. 22-27, which also disclose the superior unexpected results of the presently claimed compositions.

*As mentioned above, the '796 patent, on the other hand, discloses the very prior art that Applicants differentiate both in their specification (see, e.g., p. 8, ll. 24-29) and their claims. The '796 patent neither teaches nor suggests the presently claimed compositions.*

**The '796 patent discloses high acid, low copper concentration compositions. The bath compositions in the '796 patent examples are set out in Table 2, col. 8, wherein the copper concentration is far outside its solubility limit were the sulfuric acid concentration to be within the presently claimed range of about 65 to about 150 g/L (which in the '796 patent, it is not - as it is recited as being 180 g/L). Furthermore, as mentioned above in relation to claim 1, the '796 patent states the importance of the high acid concentration: "Also**



important to wetting is the concentration of acid and salt in the electroplating bath. High acid levels are effective in quickly dissolving any surface oxides and achieving wetting of the metal onto which subsequent plating must take place." Col. 5, ll. 33-37. Thus, not only are there reported surprising and unexpected results with the current applicants' claimed compositions, but the '796 patent teaches away from using the claim 35 recited compositions wherein the range of acid concentration is carefully set forth to be from about 65 to about 150 g/L (much lower than that taught in the '796 patent).

Also as discussed above in relation to claim 1, the Examiner cannot rely on the broad range set forth in Table 1 of the '796 patent in the face of the facts that there is (1) no motivation in the '796 patent to reach the previously avoided copper and acid concentration as currently claimed by Applicants and, (2) the '796 patent actually teaches away from such concentrations by asserting that the high acid concentration (180 g/L) is an important aspect of the disclosed alleged invention. See Table 2 and Col. 5, ll. 33-37.

Also as discussed above, the '857 reference does not make up for the deficiencies of the '796 patent. In fact, it recites the same basic convention low copper high acid compositions - reciting three examples (Examples 1-3 at col. 5, l. 54 through col. 6, l. 31) with an acid concentration of 170 g/l - again clearly outside the presently claimed range of 65-150 g/L. Examples 1-3. Of course, Applicants recognize that the Examiner is not asserting that the '857 patent teaches the compositions presently claimed. However, for the same reasons set forth above in relation to the '796 patent, the '857 patent, whether considered individually or in combination with the '796 patent, neither teaches nor suggests the compositions of present claim 35. Thus, Applicants respectfully request that the rejection be withdrawn.

Applicants also respectfully request that the rejections asserted against dependent claims 36-43, be withdrawn. Claims 36-43 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. For example, in present claim 37, a concentration of about 2 to about 30 ml/l of accelerator is recited. The only specific disclosures (other than the broad ranges disclosed in Table 1 in the '796 patent) teach and suggest an accelerator concentration of 1 ml/l - outside the presently claimed range.

*Claims 44-52 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 44 (and dependent claims 45-52) of the present application recites in part, a composition comprising about 40 g/L copper and about 100 g/L sulfuric acid. Claims 44-52 are allowable over the art of record for the same reasons as set forth above in relation to claim 1. Neither the '796 patent nor the '857 patent, whether considered individually or in combination, teaches or suggests the composition of present claim 44 (or dependent claims 45-52) and the broadly disclose ranges in Table 1 of the '796 patent do not provide motivation to suggest Applicants' claimed compositions, but instead, the more specific disclosure in the '796 patent teaches away from such compositions. Claims 45-52 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. Thus, Applicants respectfully request that the rejections to claims 44-52 be withdrawn.

*Claims 53-54 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

Claim 53 (and dependent claim 54) of the present application recites in part, a composition comprising about 50 g/L copper and about 80 g/L sulfuric acid. Claims 53 and 54 are allowable over the art of record for the same reasons as set forth above in relation to claim 1. Neither the '796 patent nor the '857 patent, whether considered individually or in combination, teaches or suggests the composition of present claim 53 (or dependent claim 54) and the broadly disclose ranges in Table 1 of the '796 patent do not provide motivation to suggest Applicants' claimed compositions, but instead, the more specific disclosure in the '796 patent teaches away from such compositions. Claim 54 is also allowable over the art of record based on the unique and non-obvious combinations of features disclosed. Thus, Applicants respectfully request that the rejections to claims 53 and 54 be withdrawn.

*Claims 55-56, 60 and 62 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Uzoh, US Pub. No. 2002/0033342. This rejection is traversed.*

Claim 55 of the present application recites in part, a method for plating a workpiece utilizing an electroplating composition comprising about 35 to about 60 g/L copper and about 65 to about 150 g/L sulfuric acid. Again, for the same reasons as discussed above, the '796 patent neither teaches nor suggests utilizing such a composition.

Furthermore, in addition to the Uzoh reference not qualifying as prior art (as its earliest priority date is after Applicants' earliest priority date), Uzoh does not make up for the deficiencies of the '796 patent as Uzoh neither teaches nor suggests utilizing compositions as recited in Applicant's claims. Of course, Applicants recognize that the Examiner is not asserting that Uzoh teaches the methods utilizing the compositions presently claimed. However, Uzoh, whether considered individually or in combination with the '796 patent, neither teaches nor suggests the compositions utilized in the methods of present claim 55. Thus, Applicants respectfully request that the rejection be withdrawn.

Claims 56, 60 and 62 are dependent upon claim 55 and thus are allowable over the art of record as well. Claims 56, 60 and 62 are also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in each of those claims. For the reasons set forth above, Applicants respectfully request that the rejections of claims 55-56, 60 and 62 be withdrawn.

*Claims 57, 59 and 61 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Uzoh, US Pub. No. 2002/0033342 and Basol USP 6,733,063. This rejection is traversed.*

In addition to the Basol reference not qualifying as prior art (as its earliest priority date is after Applicants' earliest priority date), Basol does not make up for the deficiencies of the '796 patent as Basol neither teaches nor suggests utilizing compositions as recited in Applicant's claims. Applicants recognize that the Examiner is not asserting that Basol teaches the methods utilizing the compositions presently claimed. However, Basol, whether considered individually or in combination with the '796 patent and the Uzoh reference, neither teaches nor suggests the compositions of present claims 57, 59 and 61.

These claims are allowable over the '796 patent and Uzoh for the same reasons as discussed immediately above in relation to claim 55. Because Basol does not make up for the deficiencies of the '796 patent and Uzoh, Applicants respectfully request that the rejections be withdrawn.

*Claims 63-65 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Reid USP 6,024,857. This rejection is traversed.*

For the same reasons as set forth above in relation to claim 1 and subsequent claims/arguments regarding the same, these references neither teach nor suggest (whether considered individually or in combination) the methods disclosed in claims 63-65. Accordingly, Applicants respectfully request that the rejections be withdrawn.

*Claims 66 and 67 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Wilson, US Pub. No. 2005/0178667. This rejection is traversed.*

Claim 66 of the present application recites in part, a method for plating a workpiece utilizing an electroplating composition comprising about 35 to about 60 g/L copper and about 65 to about 150 g/L sulfuric acid. Again, for the same reasons as discussed above, the '796 patent neither teaches nor suggests utilizing such a composition.

Furthermore, in addition to the Wilson reference not qualifying as prior art (as its earliest priority date is after Applicants' earliest priority date), Wilson does not make up for the deficiencies of the '796 patent as Wilson neither teaches nor suggests utilizing compositions as recited in Applicant's claim 66. Of course, Applicants recognize that the Examiner is not asserting that Wilson teaches the methods utilizing the compositions presently claimed. However, Wilson, whether considered individually or in combination with the '796 patent, neither teaches nor suggests the compositions utilized in the method of present claim 66. Thus, Applicants respectfully request that the rejection be withdrawn.

Claim 67 is dependent upon claim 66 and thus is allowable over the art of record as well. Claim 66 is also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in the claim. For the reasons set forth above, Applicants respectfully request that the rejections of claims 66 and 67 be withdrawn.

*Claims 68 and 69 are rejected under 35 USC § 103(a) as allegedly being obvious in view of Reid, USP 6,793,796 in combination with Wilson, US Pub. No. 2005/0178667. This rejection is traversed.*

Claim 68 of the present application recites in part, a method utilizing a composition comprising a mixture of copper and sulfuric acid wherein the ratio in g/L of solution of copper to

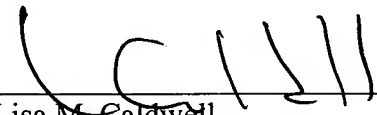
acid is equal to about 0.4 to about 0.8. As discussed above in relation to other claims (e.g., claim 26), the '796 patent neither teaches nor suggests utilizing such a composition.

Furthermore, in addition to the Wilson reference not qualifying as prior art (as its earliest priority date is after Applicants' earliest priority date), Wilson does not make up for the deficiencies of the '796 patent as Wilson neither teaches nor suggests utilizing compositions as recited in Applicant's claim 68. Claim 69 is dependent upon claim 68 and thus is allowable over the art of record as well. Claim 69 is also allowable over the art of record based on the unique and non-obvious combinations of features disclosed in the claim. For the reasons set forth above, Applicants respectfully request that the rejections of claims 68 and 69 be withdrawn.

If the Examiner has any questions or concerns regarding the present application, the Examiner is invited to contact Applicant's counsel at the telephone number set forth below.

Respectfully submitted,

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